

Amendments to the Claims:

1. (currently amended) A tube fitting for connection with a tube, said tube fitting comprising;

first and second flanged members; and

a ferrule tube gripping device between said first and second flanged members, said ferrule tube gripping device engaging said tube to form a tube grip and seal when said first and second flanged members are drawn together, wherein said tube gripping device is formed as one piece with one of said first and second flanged members.

2. (original) A tube fitting as set forth in claim 1 wherein said first and second flanged members are drawn together without relative rotation between said first and second flanged members.

3. (original) A tube fitting as set forth in claim 1 wherein there is no threaded connection between said first and second flanged members.

4. (original) A tube fitting as set forth in claim 1 further including a clamp for exerting radial force on said first and second flanged members to draw said first and second flanged members together.

5. (original) A tube fitting as set forth in claim 4 wherein said first and second flanged members have respective non-parallel surfaces that are engaged by said clamp.

6. (original) A tube fitting as set forth in claim 5 wherein said non-parallel surfaces are conical surfaces.

7. (original) A tube fitting as set forth in claim 5 wherein said non-parallel surfaces are flat surfaces.

8. (currently amended) A tube fitting as set forth in claim 1 wherein said ~~ferrule~~ tube gripping device is axially driven by the first flanged member against the second flanged member to grip and seal against the tube without relative rotation between the first flanged member and the ~~ferrule~~ tube gripping device.

9. (canceled)

10. (canceled)

11. (currently amended) A coupling apparatus ~~for coupling to a tube having an axis and an end portion, said apparatus~~ comprising:

a tube having an axis and an end portion;

a first coupling member to which the tube is to be joined in sealing engagement, the first coupling member having a tube socket for receiving the end portion of the tube, the first coupling member having a first surface;

a second coupling member and a ferrule formed as one piece, wherein the one piece coupling member and a ferrule are movable axially along the tube into engagement with the first coupling member; ~~a second coupling member movable axially along the tube for moving to move~~ the ferrule into gripping engagement with the tube, the second coupling member having a second surface that is not parallel to the first surface; and

means a clamp member engageable with the first and second surfaces for drawing the first and second coupling members together axially thereby to hold the ferrule against the first coupling member.

12. (currently amended) An apparatus as set forth in claim 11 wherein the clamp member ~~said means for drawing includes means for exerting~~ includes tapered surfaces that exert radially inwardly directed force on the first and second surfaces.

13. (original) An apparatus as set forth in claim 11 wherein said first and second surfaces are on first and second flanges, respectively, of said first and second coupling members.

14. (currently amended) An apparatus as set forth in claim 11 wherein said ferrule of the is axially driven by the second coupling member is driven against the first coupling member to grip and seal against the tube without relative rotation between the first and second coupling members.

15. (canceled)

16. (canceled)

17. (currently amended) Apparatus comprising:

a tube having an axis and an end portion;

a first coupling member to which the tube is to be joined in sealing engagement, said first coupling member having a tube socket for receiving the end portion of the tube;

a second coupling member and ferrule formed as one piece, wherein the ferrule is movable axially along the tube into engagement with said first coupling member; and

a second coupling member; and

a tapered clamp for generating axial force between said first and second coupling members to move said ferrule into gripping engagement with the tube.

18. (original) Apparatus as set forth in claim 17 wherein said tapered clamp generates axial force between said first and second coupling members without relative rotation between said first and second coupling members and said ferrule.

19. (currently amended) Apparatus as set forth in claim 18 wherein said tapered clamp comprises a member movable radially inward toward the axis to apply radial force to at least one surface of the first and second coupling members that is not perpendicular to the axis thereby to cause axial force to be applied to said ferrule.

20. (original) Apparatus as set forth in claim 19 wherein said first and second coupling members have first and second flange surfaces, respectively, that are not parallel to each other, said at least one surface being one of said first and second flange surfaces.

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (canceled)

26. (canceled)

27. (canceled)

28. (canceled)

29. (canceled)

30. (canceled)

31. (canceled)

32. (canceled)

33. (canceled)

34. (new) A tube fitting for connection with a tube, said tube fitting comprising:
first and second flanged members; and

a tube gripping device between said first and second flanged members, said tube gripping device engaging and plastically deforming said tube to form a tube grip and seal when said first and second flanged members are drawn together.

35. (new) A tube fitting as set forth in claim 34 wherein said first and second flanged members are drawn together without relative rotation between said first and second flanged members.

36. (new) A tube fitting as set forth in claim 34 wherein there is no threaded connection between said first and second flanged members.

37. (new) A tube fitting as set forth in claim 34 further including a clamp for exerting radial force on said first and second flanged members to draw said first and second flanged members together.

38. (new) A tube fitting as set forth in claim 34 wherein said tube gripping device is axially driven by the first flanged member against the second flanged member to grip and seal against the tube without relative rotation between the first flanged member and the tube gripping device.

39. (new) A tube fitting as set forth in claim 34 wherein the tube gripping device is axially driven by the first flanged member against a camming surface of the second flanged member to grip and seal the tube, wherein said camming surface of the second flanged member forms an angle of between thirty-five and sixty degrees with respect to a longitudinal axis of the tube.

40. (new) A tube fitting as set forth in claim 34 wherein the tube gripping device bites into a surface of the tube.

41. (new) A coupling apparatus comprising:

a tube having an axis and an end portion;

a first coupling member to which the tube is to be joined in sealing engagement, the first coupling member having a tube socket for receiving the end portion of the tube, the first coupling member having a first surface;

a ferrule movable axially along the tube into engagement with the first coupling member;

a second coupling member movable axially along the tube for moving the ferrule into gripping engagement with the tube, the second coupling member having a second surface that is not parallel to the first surface; and

a clamp member engageable with the first and second surfaces for drawing the first and second coupling members together axially thereby to press the ferrule against the first coupling member, such that the ferrule plastically deforms the tube to grip and seal the tube.

42. (new) An apparatus as set forth in claim 41 wherein the clamp member includes tapered surfaces that exert radially inwardly directed force on the first and second surfaces.

43. (new) An apparatus as set forth in claim 41 wherein said first and second surfaces are on first and second flanges, respectively, of said first and second coupling members.

44. (new) An apparatus as set forth in claim 41 wherein the ferrule is axially driven by the first coupling member against a camming surface of the second coupling member to grip

and seal the tube, wherein said camming surface of the second coupling member forms an angle of between thirty-five and sixty degrees with respect to a longitudinal axis of the tube.

45. (new) Apparatus comprising:

a tube having an axis and an end portion;

a first coupling member to which the tube is to be joined in sealing engagement, said first coupling member having a tube socket for receiving the end portion of the tube;

a ferrule movable axially along the tube into engagement with said first coupling member;

a second coupling member; and

a tapered clamp for generating axial force between said first and second coupling members to move said ferrule to plastically deform the tube.

46. (new) Apparatus as set forth in claim 45 wherein said tapered clamp generates axial force between said first and second coupling members without relative rotation between said first and second coupling members and said ferrule.

47. (new) An apparatus as set forth in claim 45 wherein the ferrule is axially driven by the first coupling member against a camming surface of the second coupling member to grip and seal the tube, wherein said camming surface of the second coupling member forms an angle of between thirty-five and sixty degrees with respect to a longitudinal axis of the tube.